



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

May 21, 2010

MEMORANDUM:

Subject: EPA Reg. No.: 70506-19/ UP-CYDE PRO 2.0 EC Termiticide/Insecticide  
DP Barcode: 372078  
Case No.: 2130

From: Santa K. Vinjamuri, Microbiologist  
Risk Management and Implementation Branch V  
Pesticide Re-evaluation Division (7508P)

To: Veronica Dutch, CRM  
Risk Management and Implementation Branch V  
Pesticide Re-evaluation Division (7508P)

Applicant: United phosphorous, Inc.  
630 Freedom Business Center  
King of Prussia, PA 19406

*Santa 5/21/10*  
*MJP*

FORMULATION FROM EPA Reg. No. 70506-19 LABEL:

	<u>% by wt.</u>
<u>Active Ingredient(s):</u>	
Cypermethrin* .....	24.8%
<u>*Inert Ingredient(s):</u> .....	<u>75.2%</u>
Total	100.0%

\* ( $\pm$ ) $\alpha$ -cyano-(3-phenoxyphenyl)methyl( $\pm$ )-Cis-trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate  
\*\* Cis-trans ratio  $\pm$  : 47/53  $\pm$  10 %  
Contains 2 pounds of active ingredient per gallon.



BACKGROUND: In the 8 month response to the Cypermethrin (109702) RED, the registrant is submitting acute toxicity studies to support the reregistration of their product, EPA Reg. No. 70506-19. The MRID's: 480547-01 thru -06 (81-1 to 81-6) were conducted by Department of Toxicology Jai Research Foundation. The test material used in each of these studies was the subject product.

RECOMMENDATIONS:

- The acute toxicity studies 81-1, 81-2, 81-3, 81-4, 81-5 and 81-6 submitted are acceptable to support the reregistration of EPA Reg. No. 70506-19

The acute toxicity profile for EPA Reg. No. 70506-19 is currently:

Acute Oral	II	Acceptable ( $LD_{50} > 166.32$ mg/kg)
Acute Dermal	III	Acceptable ( $LD_{50} > 2,000$ mg/kg)
Acute Inhalation	IV	Acceptable ( $LC_{50} > 2.118$ mg/L)
Primary Eye	III	Acceptable
Primary Dermal	IV	Acceptable
Skin Sensitization	Sensitizer	Acceptable

NOTE: The acute toxicity requirements have been satisfied for the subject product.



**DATA REVIEW FOR ACUTE ORAL TOXICITY (§81-1, 870.1100)**

**Product Manager:** R. Gebken, 13  
**MRID No.:** 480547-01

**Reviewer:** Santa K. Vinjamuri  
**Study Completion Date:** 3/7/01  
**Report No.:** 2946

**Testing Facility:** Department of Toxicology Jai Research Foundation.  
**Author:** M. D. Rana

**Quality Assurance (40 CFR §160.12):** Included

**Test Material:** Cypermethrin 24.8% EC (Trade name Ustaad; Cyrux), light yellowish clear liquid  
**Species:** Wistar albino rat

**Conclusion:**

1. **LD<sub>50</sub> (mg/kg):** 166.32 mg/kg

2. **Toxicity Category:** II

**Classification:** Acceptable

**Procedure (Deviations from §81-1):** none

**Results:**

Dose mg/kg	(number deaths/number tested)		
	Males	Females	Combined
125	1/5	0/5	1/10
175	4/5	2/5	6/10
225	5/5	4/5	9/10



**DATA REVIEW FOR ACUTE DERMAL TOXICITY (§81-2, 870.1100)**

**Product Manager:** R. Gebken, 13  
**MRID No.:** 480547-02

**Reviewer:** Santa K. Vinjamuri  
**Study Completion Date:** 3/7/01  
**Report No.:** 2947

**Testing Facility:** Department of Toxicology Jai Research Foundation.  
**Author:** M. D. Rana

**Quality Assurance (40 CFR §160.12):** Included

**Test Material:** Cypermethrin 24.8% EC (Trade name Ustaad; Cyrux), light yellowish clear liquid

**Species:** Wistar rats

**Summary:**

1. **LD<sub>50</sub> (mg/kg):** > 2000 mg/kg

2. **Toxicity Category:** III

**Classification:** Acceptable

**Procedure (Deviations From §81-2):** none

**Results:**

**Reported Mortality**

Dosage (mg/kg)	(number deaths/number tested)		
	Males	Females	Combined
2000	0/5	0/5	0/10



# DATA REVIEW FOR ACUTE INHALATION TOXICITY TESTING (§81-3, 870.1300)

**Product Manager:** R. Gebken, 13  
**MRID No.:** 480547-03

**Reviewer:** Santa K. Vinjamuri  
**Study Completion Date:** 2/28/01  
**Report No.:** 2951

**Testing Facility:** Department of Toxicology Jai Research Foundation.  
**Author:** B. C. Roy

**Quality Assurance (40 CFR §160.12):** Included

**Test Material:** Cypermethrin 24.8% EC (Trade name Ustaad; Cyrux), light yellowish clear liquid  
**Species:** Sprague-Dawley albino rat

1. **LC<sub>50</sub> (mg/L):** <2.118 mg/L

2. **MMAD:** 3.05 – 3.33 µm

**GSD:** 2.30 - 2.48

3. **Tox. Category:** IV

**Classification:** Acceptable

**Procedure (Deviation From §81-3):** none

**Results:** **Reported Mortality**

Exposure Concentration mg/L	(number deaths/number tested)		
	Males	Females	combined
1.54	-	1/5	1/5
2.33	-	3/5	3/5

Chamber Atmosphere		
Dose Level mg /L	MMAD	GSD
1.54	3.05	2.30
2.33	3.33	2.48



**DATA REVIEW FOR PRIMARY EYE IRRITATION TESTING (§81-4, 870.2400)**

**Product Manager:** R. Gebken, 13

**MRID No.:** 480547-04

**Reviewer:** Santa K. Vinjamuri

**Study Completion Date:** 3/7/01

**Report No.:** 2949

**Testing Facility:** Department of Toxicology Jai Research Foundation.

**Author:** M. D. Rana

**Quality Assurance (40 CFR §160.12):** Included

**Test Material:** Cypermethrin 24.8% EC (Trade name Ustaad; Cyrux), light yellowish clear liquid.

**Dosage:** 0.1 ml

**Species:** New Zealand White rabbit

**Summary:**

**Toxicity Category:** III

**Classification:** Acceptable

**Procedure (Deviations From §81-4):** none

**Results:**

Observations	(number "positive"/number tested)				
	Hours				Days
	1	24	48	72	7
Corneal Opacity	0/3	0/3	0/3	0/3	0/3
Iris	0/3	0/3	0/3	0/3	0/3
Conjunctivae					
Redness	0/3	3/3	1/3	0/3	0/3
Chemosis	0/3	2/3	2/3	0/3	0/3
Discharge	-	-	-	-	-



**DATA REVIEW FOR SKIN IRRITATION TESTING (§81-5, 870.2500)**

**Product Manager:** R. Gebken, 13  
**MRID No.:** 480547-05

**Reviewer:** Santa K. Vinjamuri  
**Study Completion Date:** 03/07/01  
**Report No.:** 2948

**Testing Facility:** Department of Toxicology Jai Research Foundation.  
**Author:** M. D. Rana

**Quality Assurance (40 CFR §160.12):** Included

**Test Material:** Cypermethrin 24.8% EC (Trade name Ustaad; Cyrux), light yellowish clear liquid  
**Dosage:** 0.5 ml  
**Species:** New Zealand White rabbit

**Summary:**

1. **Toxicity Category:** IV                      PII = 3
2. **Classification:** Acceptable

**Procedure (Deviations From §81-5):** none

**Results:** At 24, 48 and 72 hrs, 3/3 very slight erythema, all cleared by day 7.



**DATA REVIEW FOR DERMAL SENSITIZATION TESTING (§81-6, 870.2600)**

**Product Manager:** R. Gebken, 13  
**MRID No.:** 480547-06

**Reviewer:** Santa K. Vinjamuri  
**Study Completion Date:** 7/20/01  
**Report No.:** 2950

**Testing Facility:** Department of Toxicology Jai Research Foundation.  
**Author:** M. D. Rana

**Quality Assurance (40 CFR §160.12):** Included

**Test Material:** Cypermethrin 24.8% EC (Trade name Ustaad; Cyrux), light yellowish clear liquid

**Positive Control Material:** 2-Mercaptobenzothiazole

**Species:** Albino guinea pig

**Method:** GPMT

**Summary:**

1. **This Product is a sensitizer**
2. **Classification:** Acceptable

**Procedure (Deviation From §81-6):** None

**Results:**

None of the animals of treatment group exhibited positive skin response at 24 hrs., after challenge application. At 48 hrs., 2/20 of these exhibited discrete or patchy erythema .

The skin reaction score was 1 in 2 out of 20 animals at 48 hrs of challenge application.



**LABELING:**

**ID #:** 070506-00019      **UP-CYDE PRO2.0 EC TERMITICIDE/INSECTICIDE**

**RESTRICTED USE CLASSIFICATION REQUIRED**

Due to residential use also due to acute oral LD<sub>50</sub> < 1.5 g/kg.

**CHILD RESISTANT PACKAGING REQUIRED**

Due to residential use also due to acute oral LD<sub>50</sub> < 1.5 g/kg.

**SIGNAL WORD:**              **WARNING**              **AVISO**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS:**

May be fatal if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long sleeved shirt and long pants, socks, shoes and chemical resistant gloves (such as or made out of any waterproof material, selection category A).

\*If Selection Category A gloves does not provide adequate protection for this product, the registrant should indicate a specific glove category from the EPA chemical resistance chart that will provide adequate protection.

**FIRST AID:**

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.



#### **USER SAFETY RECOMMENDATIONS:**

User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.